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Remarks:

Reconsideration of the application is respectfully requested.

Claims 1 - 8 and 10 - 21 are presently pending in the application. As it is believed that the claims were patentable over the cited art in their original form, the claims have not been amended to overcome the references.

In item 2 of the above-identified Office Action, claims 1, 2 and 10 - 21 were rejected under 35 U.S.C. § 103(a) as allegedly being obvious over U. S. Patent No. 6,384,710 to LeMense et al ("**LEMENSE**") in view of U. S. Patent No. 6,393,071 to Bourzeix ("**BOURZEIX**") and U. S. Patent No. 4,523,184 to Abel ("**ABEL**"). In item 4 of the Office Action, claims 3 - 8 were rejected under 35 U.S.C. § 103(a) as allegedly being obvious over **LEMENSE** in view of **BOURZEIX** and **ABEL**, and further in view of U. S. Patent No. 6,314,125 to Shanbhag ("**SHANBHAG**").

Applicants respectfully traverse the above rejections.

First, the combination of references cited in item 2 of the Office Action fails to teach or suggest all limitations of Applicants' independent claims 1, 11, 12, 16 and 20. More particularly, Applicants' independent claims 1, 11 and 20 recite, among other limitations:

Applic. No. 09/994,197
Response Dated February 6, 2007
Responsive to Office Action of December 6, 2006

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FEB 06 2007

receiving and processing the data messages transmitted on the at least two different carrier frequencies **within the one transmission channel defined by a receiver bandwidth in the range of +/- 300 ppm deviating from a nominal carrier frequency.** [emphasis added by Applicants]

Similarly, Applicants' independent claims 12 and 16 recite, among other limitations:

a receiver for receiving and processing the data messages transmitted on the at least two different carrier frequencies **within the one transmission channel defined by a receiver bandwidth in the range of +/- 300 ppm deviating from a nominal carrier frequency.** [emphasis added by Applicants]

Page 3 of the Office Action alleges that the above limitation of Applicants' claims is disclosed in Abel, stating:

Abel teaches a receiver bandpass filter (71) tuned to a nominal transmission frequency and **having a bandwidth of 10 MHz in order to accommodate transmission deviation of +/-2.5 MHz.** See col. 7, lines 64-68 and col. 9, lines 60-63.

Thus it would have been obvious to one skilled in the art at the time the invention was made to provide the reception of the carrier frequencies with a receiver bandwidth in the range of a predetermined extend deviating from the normal carrier frequencies for the purpose of receiving transmission even if the carrier frequencies slightly deviates from the nominal frequencies with variations in element characteristics. [emphasis added by Applicants]

Applicants' respectfully disagree with the statement in the Office Action that the combination of cited references would render obvious Applicants' claims. More particularly, as

Applic. No. 09/994,197
Response Dated February 6, 2007
Responsive to Office Action of December 6, 2006

stated above, Applicants' claims require, among other limitations, receiving and processing the data messages transmitted on the at least two different carrier frequencies within the one transmission channel defined by a receiver bandwidth in the range of +/- 300 ppm deviating from a nominal carrier frequency. However, none of the references cited in the Office Action, including the **ABEL** reference, teach or suggest, among other limitations of Applicants' claims, receiving and processing the data messages transmitted on the at least two different carrier frequencies within the one transmission channel defined by a receiver bandwidth in the range of +/- 300 ppm deviating from a nominal carrier frequency.

Rather, the **ABEL** reference (alleged in the Office Action to disclose the above limitation of Applicants' claims) discloses a supervised wireless security system. Col. 7 of **ABEL**, lines 64 - 68 (cited in the Office Action), state:

The nominal center frequency of the preferred embodiment is **314 MHz**, which may vary slightly with variations in element characteristics; the frequency deviation of the transmitter of the preferred embodiment is **± 2.5 MHz**. [emphasis added by Applicants]

However, the extent of deviation of **2.5 MHz** at a nominal frequency of **314 MHz** is about **0.8 %**, corresponding to a deviation of **8,000 ppm**. A range of deviation of **8,000 ppm**, as

Applic. No. 09/994,197
Response Dated February 6, 2007
Responsive to Office Action of December 6, 2006

taught by ABEL, is much greater than the defined range of 300 ppm, recited in Applicants' independent claims. In fact, none of the cited references disclose Applicants' particularly claimed range of deviation of +/- 300 ppm. The ABEL reference, cited in the Office Action as allegedly disclosing this limitation of Applicants' independent claims, not only does not disclose a deviation in the range of +/- 300 ppm, as required by Applicants' claims, but specifically teaches away from Applicants' claims by emphasizing a range of deviation of 8,000 ppm. None of the other references cited in the Office Action, cure the above-discussed deficiency of the ABEL reference.

As such, all of Applicants' claims are believed to be patentable over the ABEL, BOURZEIX, LEMENSE and SHANBHAG references, as none of those references teach or suggest, among other limitations of Applicants' claims, receiving and processing the data messages transmitted on the at least two different carrier frequencies within the one transmission channel defined by a receiver bandwidth in the range of +/- 300 ppm deviating from a nominal carrier frequency.

Further, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion or

Applic. No. 09/994,197
Response Dated February 6, 2007
Responsive to Office Action of December 6, 2006

motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. However, nothing in the ABEL, BOURZEIX, LEMENSE and SHANBHAG references, nor in the general knowledge in the art, would teach, suggest to or motivate a person of ordinary skill in this art, to combine the references in the manner suggested in the Office Action.

First, a person of ordinary skill in this art would not be motivated to combine LEMENSE with BOURZEIX, in the manner suggested in the Office Action.

More particularly, the transmitter unit of LEMENSE transmits a first frequency of 342.4 MHz and a second frequency of 385.2 MHz, both of which deviate from a middle or reference frequency of 363.8 MHz by 21.4 MHz. Thus, assuming that a single oscillator is used in the transmitter of LEMENSE, that oscillator would require a **very large** detuning range of about 5.88 % or 58,800 ppm (i.e., for a deviation of 21.4 MHz around a middle frequency of 363.8 MHz). **However, a detuning value of the magnitude required in LEMENSE would exceed the capabilities of a conventional oscillator crystal.** As such, a person of ordinary skill in this art, would **not** think to replace the oscillator in LEMENSE with the oscillator crystal disclosed in BOURZEIX, because the person of skill in the art

Applic. No. 09/994,197
Response Dated February 6, 2007
Responsive to Office Action of December 6, 2006

would **know** that a conventional oscillator **crystal** could not be detunable over the range required by the teachings of **LEMENSE**.

As such, the general knowledge in the art would motivate against the modification of **LEMENSE** suggested in the Office Action. As there is no teaching or suggestion in the references to make such a substitution, and because the general knowledge of a person or skill in this art would teach against such a substitution, Applicants' claims are not believed to be obvious in view of **LEMENSE** and **BOURZEIX**, with or without **ABEL** and/or **SHANBHAG**.

Further, the **BOURZEIX** reference only discloses detuning an oscillator crystal **35 kHz** around a carrier frequency of **13 MHz**, which corresponds to 2,700 ppm. As such, a person skilled in the art would not substitute the **oscillator crystal** of **BOURZEIX** into the transmitter of **LEMENSE**, since **BOURZEIX** does not teach or suggest that the **oscillator crystal** of **BOURZEIX** is detunable in a range of **58,800 ppm** (i.e., for a deviation of 21.4 MHz around a middle frequency of 363.8 MHz), as required by the teachings of **LEMENSE**. Additionally, the teaching in **BOURZEIX** of a range of deviation of 2,700 ppm, supports and further reinforces the general knowledge of a person skilled in the art, that a detunable crystal oscillator can not have a detuning range of 58,800 ppm (i.e., at least

Applic. No. 09/994,197
Response Dated February 6, 2007
Responsive to Office Action of December 6, 2006

not while having frequency stabilizing elements, which are necessary for achieving a predetermined nominal frequency).

As such, a person of ordinary skill in the art, reading **LEMENSE** and **BOURZEIX**, would not be provided with a teaching, suggestion or motivation to substitute the oscillator of **LEMENSE** with a crystal oscillator, as in **BOURZEIX**. In fact, the general knowledge in the art would teach against such a substitution. The **ABEL** and **SHANBHAG** references do not cure the above-discussed deficiencies of the **LEMENSE** and **BOURZEIX** references. As such, Applicants' independent claims are believed not to be obvious over **BOURZEIX**, **LEMENSE**, **ABEL**, and/or **SHANBHAG**, taken alone, or in any combination.

Further still, a person of ordinary skill in this art, upon reading **LEMENSE**, **BOURZEIX** and **ABEL**, would not receive any teaching suggestion or motivation to combine **LEMENSE** with **ABEL**, in the manner suggested in the Office Action. More particularly, the receiver of **LEMENSE** must receive two signals having first and second different frequencies of 342.4 MHz and 385.2 MHz, respectively. Thus, as discussed elsewhere herein, the receiver of **LEMENSE** is required to have a detection range of 58,800 ppm, about a nominal frequency of 363.8 MHz. However, Applicants believe that, to operate in the environment required in **LEMENSE** (i.e., 58,800 ppm about a

Applic. No. 09/994,197
Response Dated February 6, 2007
Responsive to Office Action of December 6, 2006

nominal frequency of 363.8 MHz), the receiver disclosed in **Abel** would need to be **greatly modified** to even work with the transmitter of **LEMENSE**. Moreover, because **LEMENSE** discloses a receiver unit (for example as shown in Fig. 9 of **LEMENSE**) that is **especially adapted** for receiving the two different signals on the respective first and second frequencies of **LEMENSE**, there would be absolutely no teaching, suggestion or motivation for a person of ordinary skill in this art to even look for another receiver, for the transmitter of **LEMENSE**. Rather, **LEMENSE** provides the ideal receiver, suited to the transmitter of **LEMENSE**, while, any other receiver unit would have to be modified in order to receive the two frequencies of **LEMENSE**, which are separated by $2 * 21.4$ MHz. Thus a person of ordinary skill in this art, reading **BOURZEIX**, **LEMENSE** and **ABEL**, would not be provided with any teaching, suggestion or motivation to combine those references in the manner suggested in the Office Action. Absent such teaching, suggestion or motivation, Applicants' claims cannot be found to be obvious over the **BOURZEIX**, **LEMENSE** and **ABEL** references.

Additionally, a person of ordinary skill in this art would be led away from combining **ABEL** and **LEMENSE**, because, among other reasons, **ABEL** discloses requiring a certain lock-on pulse to be generated at the beginning of each transmission from each transmitter, wherein such a lock-on pulse includes a sweep of

Applic. No. 09/994,197
Response Dated February 6, 2007
Responsive to Office Action of December 6, 2006

the actual instantaneous oscillator frequency passing relatively slow through the nominal frequency to which the receiver is tuned. See, for example, col. 15 of **ABEL**, lines 24 - 33. However, **LEMENSE** neither teaches, nor suggests, each transmitter being required to generate such a lock-on sweeping through a certain nominal frequency. Rather, **LEMENSE** discloses generating two signals on exactly two frequencies (which than can be received by the special construction of the receiver unit shown, for example, in Fig. 9 of **LEMENSE**). Thus, since the device disclosed in **LEMENSE** would not able to initiate proper operation of the receiver unit disclosed in **ABEL**, a person of ordinary skill in this art would be led away from any combination of **LEMENSE** and **ABEL**. The **BOURZEIX** and **SHANBHAG** references additionally do not cure the above-discussed deficiencies in the teachings of **LEMENSE** and **ABEL**.

For the above reasons, among others, Applicants' claims are believed to be patentable over the **LEMENSE**, **ABEL**, **BOURZEIX** and **SHANBHAG** references, whether taken alone, or in combination.

It is accordingly believed that none of the references, whether taken alone or in any combination, teach or suggest the features of claims 1, 11, 12, 16 and 20. Claims 1, 11, 12, 16 and 20 are, therefore, believed to be patentable over the art. The dependent claims are believed to be patentable

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CENTRAL FAX CENTER
FEB 06 2007

Applic. No. 09/994,197
Response Dated February 6, 2007
Responsive to Office Action of December 6, 2006

as well because they all are ultimately dependent on claims 1,
12, 16 or 20.

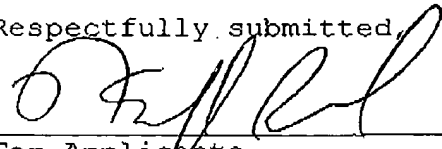
In view of the foregoing, reconsideration and allowance of
claims 1 - 8 and 10 - 21 are solicited.

In the event the Examiner should still find any of the claims
to be unpatentable, counsel would appreciate receiving a
telephone call so that, if possible, patentable language can
be worked out.

If an extension of time for this paper is required, petition
for extension is herewith made.

Please charge any fees that might be due with respect to
Sections 1.16 and 1.17 to the Deposit Account of Lerner
Greenberg Sterner LLP, No. 12-1099.

Respectfully submitted,



For Applicants

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